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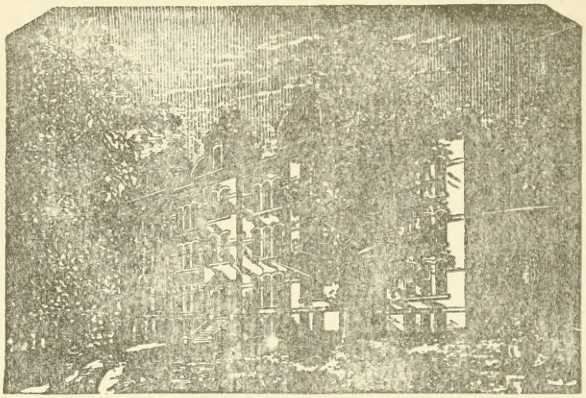

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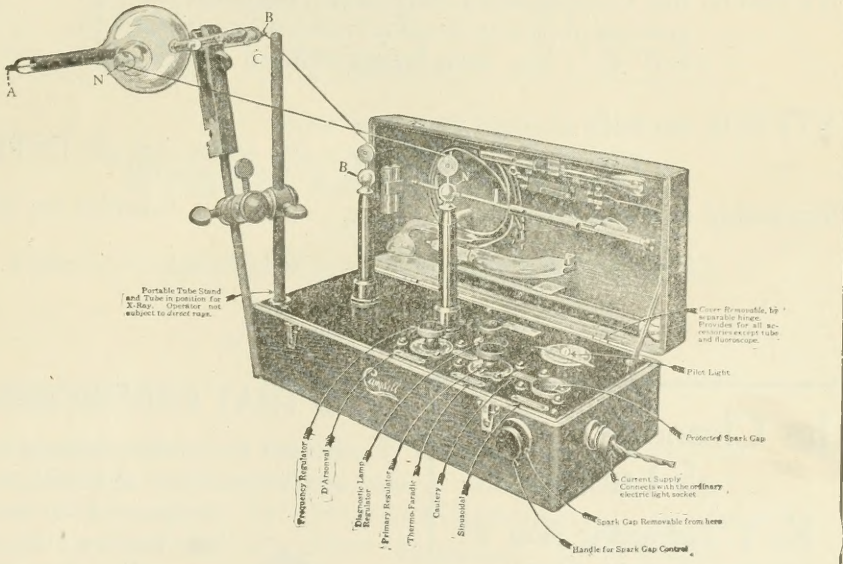

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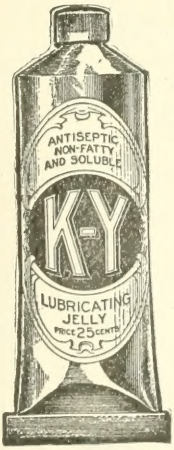

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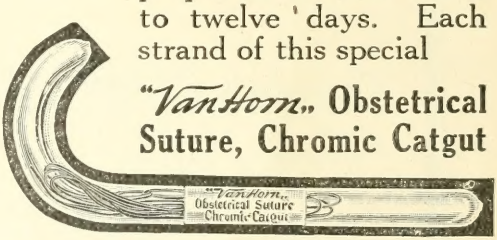

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MEDICINE AND SURGERY

CHARLES S. BRIGGS, A.M., M.D., Editor.
W. T. BRIGGS, B.A., M.D., Associate Editor.

VOL. CX. FEBRUARY, 1916. No. 2

Original Communications

PERIODIC DRINKING A FORM OF CONVULSIONS.

BY T. D. CROTHERS, M.D.,
Hartford, Conn.

In every section of the country there are persons who use alcohol to great excess for a brief time, then become abstinent and remain so for a longer or shorter period. In popular language these are called "sprees" or "nerve storms." Literally, men and women in all walks and conditions of life find in alcohol a nepenthe and relief from strains and drains, or conditions of unrest and exhaustion, and drink to stupor and unconsciousness. Now, why this is so is unknown. Theories, traditions and explanations fail to give the real reason.

The sentiment that such occasions are moral lapses, the coming to the surface of the cave man instincts, the possession of the evil spirit and so on, are considered in many circles as the actual reasons up to the present.

Quacks, with their pretentions and dogmatism occupy this field and claim results to sustain their theories, yet today there is no accurate data or facts that will explain satisfac-

torily these sudden obsessions and nerve explosions which cause so much suffering and loss in almost every community of the country.

Scientific observation and experience indicate that these attacks resemble epilepsy and are veritable "nerve storms," coming on suddenly and then recurring after an interval of sobriety and good living. Often the "sprees" are preceded by derangements of the stomach, exhaustion, overexcitement, nervousness, and mental disturbance. Anxiety and fears causing sleeplessness very often bring on conditions of debility that are relieved most readily by some form of alcohol, and then comes an excessive use, up to stupor, and this continues for several days.

In high business circles these "sprees" are very serious breaks and cause intense regrets and remorse. Most persons of this class are very anxious to recover permanently, and do everything in their power to prevent relapse. If these "sprees" recur at regular intervals, they should be anticipated and active means and measures used to avert them. Select a physician of good judgment and experience, and have him study the symptoms which precede these attacks. He then has some basis on which to give medicines and suggest changes that will break up the onset of the drink craze. Thus, in one instance, a man by taking active purgation, Turkish baths, and a restricted diet, remaining in bed for a day or two, passes over the period when he would usually drink, and goes on many months free.

In another instance, a professional man stops all work and goes off to an institution, where he receives baths, electricity, tonics, and a change of thought and occupation for a week or so, then returns fully restored. Other examples are of persons who recognize the symptoms that usually precede their drink "spree," and go away to the woods hunting and fishing, or go down to the seashore and bathe freely, or turn their attention to some other work, or go visiting in out-of-the-way places; anything to divert the energies and change the conditions of living and thinking. When the storm is

averted a few times, the drink craze seems to die out, and the patient may be said to be cured.

In institutions managed by scientific men there is an increasing number of persons who come for advice, particularly how to escape these attacks that are sure to occur unless some active measures are used. Thus a prominent judge adjourns his court and goes under the care of a doctor for a few days, literally to avert a drink "spree," which is certain to break out, although concealed from his friends. He returns and is able to carry on his work as usual. Business men occupying positions of great responsibility often appear and take what is called "treatment," which literally means some remedies and measures that will break up the intense craze for the narcotism of alcohol, which comes over them like a storm and is not satisfied until it is fully gratified.

Many drug takers have become so by the use of opium and morphia to break up the alcoholic craze, or perhaps given by some thoughtless physician, or perhaps they have taken some quack drug or proprietary medicine containing morphia, and the end is a worse condition than that from which they sought to escape.

Every periodic drinker ought to realize that he needs medical counsel and advice as urgently as any fever case, or even tuberculosis. He should select some medical man and make him a confident, and the problem of how to avert the drink storm can then be solved along rational lines, and many poor victims can be permanently restored. Quack cures and advertised specifics are to be shunned. The fact that they are patronized at all shows a demand for help, which the quack is ever ready to supply with all sorts of guarantees, but in reality these leave the victim weaker and more incurable than he was before.

Scientific experience has shown the curability of these disorders, and it seems foolish and criminal for intelligent men or women to break down at intervals in alcoholic sprees"

when they could positively recover by proper means and measures.

This is along the line of scientific prevention, and the new work done here by experts is as startling as the discovery of new germs, although concealed and not heralded in the papers. There are no secret drugs or special remedies that will apply to everyone. It is the scientific use of means adapted to each individual case and administered by wise judgment and skill. Whenever the person is anxious and willing to break off these terrible drink crazes and become free again he must set about it in a rational, businesslike way, and remember that no treatment can be of any avail unless it comes from a thorough study of the man and his conditions.

Each case differs from every other, and the talk of cures in a certain brief time, for a certain commercial sum, is entirely out of the range of scientific work. This fact applies to a great many other disabilities in life. The subterfuge of going to Europe and claiming to be overworked, and securing relief from this means, or going away to some watering place, and hoping to obtain relief in some unusual and extraordinary way, should be put aside, and the person should treat himself and his condition the same as he treats property, using only the best skill and the most rational measures that can be devised.

Among the patrons of almost every medical man are men and women who have literal "drink storms." The men will frequently go away, use alcohol for three or four days, or longer, then come home suffering from gastritis and various other disorders, and the physician will be called. The man is sure to recover under any treatment, for the storm is over, and nature will take care of the injuries done.

In the remorseful stage the family may become excited and the doctor will reflect this excitement in some way, and send him off to some advertised cure or sanitorium with the dominant idea that he is going to receive some special cure or some drug treatment that will be permanent. He takes

what is given him, and in a few weeks returns home, enthused with the fact that he has received radical treatment.

The enthusiasm gradually dies away, and by and by the drink storm breaks out again, this time more secretive than ever, because of his wounded pride and disappointment which he knows will make his friends suffer, and lower their respect for him. Later he comes to the doctor again and recovers, and the doctor foolishly assumes that there is no cure or else he becomes enthused with some drug combination, and believes that this is responsible for the restoration of the patient. All this is a perfect farce. The patient recovers with or without treatment and the condition he suffers from is largely unknown.

The question of why these storms gather and break must be settled first. These patients must be studied, and these storms anticipated and provided for, either by home treatment or hospital treatment away from home.

The patient is often aware of the on-coming storm by nervousness, excitement, unrest, and his friends often recognize his emotional perturbations and changes of conduct. This is the period for active treatment. Thus in one instance, a man previously good-natured, kindly and affectionate, will suddenly, without any special cause, begin to scold and accuse his friends of taking advantage of him. He will show suspicion and do most unusual things. In a day or so he is found intoxicated. This mental irritation was the actual symptom of the drink storm, and here is where the medical man would have been of inestimable value. Often a purge, a Turkish bath, or a change of scenes or surroundings might have averted this storm, but nothing is done. His intimate family and associates know that these are symptoms precede drink attack, and yet nothing is done to avert it. No medical advice or counsel is sought for, until the attack has become fully developed.

A reputable authority says that over half of all the persons who go to cures and sanitoriums for the drink habit would get well at home without any treatment; their dis-

order is self-limited. In my experience at least 75 per cent of these periodic drinkers could be cured and restored again to health by the proper treatment, which anticipates the drink craze.

The most successful cases of restoration I have seen have been along this line, where the patients and their families were alert to anticipate the "storm" and use every means of prevention. Thus a young man who accidentally comes home with an alcoholic breath should be the subject of the most intense study and active treatment to prevent him from going any farther. His promises and explanations should never be taken literally. He should be made to understand that he is on the verge of a disaster, that unless stopped at the beginning will be destructive.

This is the new field which is not occupied and which promises the most positive results. Every physician can take up the study in his own circle and become a great power among his patrons and do more literal scientific work than when called on to treat the case after the storm has begun.

If physicians are not confident of their own capacity to treat these cases, send them to someone who can, but do this early, in the beginning, and not wait until the storm has broken out and its natural termination is in sight. It is better to keep them home and give them sulphate of magnesia every hour and any other treatment that appeals, and get the credit of their recovery which irregulars revel in so sharply.

The three days' or three weeks' cures, by almost any kind of remedies, are farcical to the last degree, especially in periodic cases. In the steady drinkers, the results are more satisfactory, as to permanence, but in the periodic cases the boasted 99 per cent cures is real. They all would get well anyway, but the fact that 99 per cent relapse in the future, sooner or later, is not spoken of. This is much more accurate than the former statement.

In my experience, covering many years in the care of a large number of people, if the person can be trained to an-

ticipate these attacks, and his friends can help him to overcome them, permanent cures will be the rule and not the exception.

It is only along this road that this terrible disorder can be effectually checked, and many of the brightest intellects in business and professional circles can be restored again to a life of great usefulness. When those facts are understood and put into practice we shall have less tragedies and disasters, and less poor victims down at the terminal stages of the almshouse and prison.

Selected Articles

ENTEROPTOSIS.

BY F. ROBBINS, M.D.,
New York.

General Remarks—Enteroptosis means a descent of otherwise healthy abdominal organs below their normal level, in the direction of gravity, and is characterized by abnormal mobility of the displaced viscera. The displacement may concern the bowel, the stomach, the liver, the spleen, and the kidney. The condition is named after Glenard, who regarded it as extremely common, believing it to be present in ninety or more per cent of all persons who seek professional advice.

The *cause* of enteroptosis, aside from congenital factors, is referable to a lack of tonus of the anterior abdominal wall. This relaxation affects the abdominal muscles, so that the recti become insufficient and unable to resist the intraabdominal pressure. The onset of enteroptosis is favored by traumatism and violent exercise. Pregnancy, and improper clothing, such as tight corsets, are important etiological factors, and enteroptosis is accordingly more frequent in women than in men. Symptoms on the part of the uterus are often relieved by the treatment of enteroptosis. Rational methods of treatment are based upon the recognition of the etiological factor of the disease, which is relaxation with atony. Enteroptosis gives rise to a train of rather indefinite symptoms, indigestion with abdominal discomfort, increased peristalsis and constipation, nervousness, mental depression, and vertigo.

Radiography—The extreme frequency of gastroptoses of all degrees, in women as well as in men, is best revealed by

x-ray examination, which also explains the reason why conservative therapeutic measures fail in a certain number of the cases, on account of adhesions fixing the displaced stomach at various points of the abdominal cavity. Radiography illustrates the inadequacy, futility, or actual harmfulness of most of the customary procedures for the correction of the gastric displacement. A revolution of the pathology of the large intestine has been brought about by the use of the x-rays, which also afford valuable information on the subject of enteroptosis. However, the opinions of specialists are still at variance as to the interpretation of the findings. In enteroptosis, the last coils of small intestine are no longer in the vicinity of the cecum, but they have dropped down into the small pelvis. The transverse colon is usually lowered, and the hepatic flexure is often displaced downwards, while the sigmoid flexure sags more frequently than any other segment of the large intestine. The descent of the large bowel (coloptosis) is of even greater clinical significance than a sagging stomach, whereas ptosis of the small intestine is relative unimportant.

Recent Statements of Prominent Clinicians and Operators. The most recent important contributions to the subject of enteroptosis (splanchnoptosis) are those of Thorkild Rovsing and of Grechen. The monograph of the former, entitled, Bastro-Coloptosis, contains chapters devoted to the discussion of the pathological significance, which in the author's opinion is frequently underestimated, the *clinical pictures* of the disease, its diagnosis and treatment; with a report of three hundred cases treated by gastropexy. Rovsing emphasizes the numerous confusions of gastroptosis with other diseases of the stomach, such as gastric ulcer or cancer, and the frequency of mistaken treatment. Inefficient or harmful gastroenterostomies for "suspected ulcer," as well as most useless appendectomies and oophorectomies, can be avoided by the proper recognition of enteroptosis, and its cure through the performance of an operation (gastropexy), or the application of a bandage, according to indi-

vidual needs in a given case. Proper fixation compensates for the lost function of the suspensory ligaments of the stomach, and the resulting loss of normal support. The power of evacuation of the stomach is improved, as the indirect effect of the operation. Gastropexy is absolutely indicated in all those cases of gastrocoloptosis in which the patients are semi-invalids, and more or less unfit for work, on account of their gastrointestinal disturbance, in spite of systematic medicinal measures and the application of an abdominal supporting bandage. In order to be efficient in any case of enteroptosis, the bandage or binder must meet the following conditions: The pressure must act widely, on the hypogastrium alone, by means of a large strong pad or pledget; the pressure must be uninterrupted and extensive; the bandage must be so constructed that the patient can put it on in the morning, before getting up, while the abdominal organs are still in their proper place.

Enteroptosis is considered by some authors as a phenomenon of degeneration, one of many symptoms of a universal asthenia; while others believe that the displacement of the organs as such is the actual cause of most of the distressing symptoms and disturbances. Rovsing points out that there is a tendency among physicians as well as in the laity, to regard as hysterics or malingerers many unfortunate sufferers from enteroptosis, who, on examination were found to be free from organic or functional disease of the digestive system. In those cases gastropexy, in his experience, has a most beneficial effect, and requires to be supplemented by gastroenterostomy, or more rarely resection, only when the condition is complicated by duodenal ulcer, pyloric stenosis, or hourglass stomach.

Grechen considers *gastroptosis* as a congenital displacement of the stomach. Well-marked cases were observed by him in children less than five years of age. The displacement is always associated with anomalies of microscopical structure, congenital weakness of the muscular layer, insufficient secretion, general relaxation, and a tendency to dis-

ease. The muscular tonus of a displaced stomach is diminished or altogether lost, and enormous quantities of undigested, half decomposed food will occasionally collect, with disastrous results, in a sluggish dilated stomach. The diagnosis of gastric dilatation—a result of gastroptosis—is based essentially upon the history, the long-standing digestive disturbances, symptoms of gastric ulcer, anorexia, obstipation, general weakness, and nervous irritability. The most favorable cases of gastroptosis are those in which the upper pole of the stomach is not much lower than the umbilicus. In very advanced cases, the displaced stomach rests upon the pubic ramus, filling most of the large pelvis. Midway cases are those in which the lowest point lies between the umbilicus and an imaginary horizontal line drawn through the two iliac crests.

Gastroptosis and *enteroptosis,* from the therapeutic point of view, are a single closely associated disease. The descent of the stomach is invariably accompanied by intestinal disturbances, which in a number of cases govern the clinical picture. The duodenal digestion is necessarily impaired, as the direct consequence of the pathological processes in the stomach and at the pylorus. Furthermore, it results from the congenital etiology that the deficiency is never limited to a single segment of the digestive apparatus, but that the entire system is involved in the degeneration. Ptosis of the sigmoid flexure of the colon is the most common type of displacement of the large bowel. On the other hand, the duodenum is not apt to leave its normal position, although a vertical displacement of its first segment has been observed as a sequel of gastroptosis. The jejunum and ileum are so freely movable under normal conditions that enteroptosis here plays a substitute part. Conditions differ in the large intestine, where the sigmoid flexure shows a predisposition to displacement. Motor insufficiency is the principal factor, and this is maintained and aggravated by congenital (more rarely, acquired) anomalies of position. The enteroptosis is not primarily due to abnormal mechanical pressure of a

dilated stomach upon the transverse colon, but is in all probability dependent upon congenital developmental variations.

Treatment.—In a general way, surgical treatment of gastroptosis is reserved for the gravest cases, whereas all other patients are treated only with dietetic and internal measures. Although these can hardly accomplish a cure, the disturbances may be efficiently controlled and the nutrition greatly improved, so that operative interference no longer enters into consideration. A purely vegetable diet, including egg-yolks, is usually recommended, with restriction of all sorts of fluids, not excepting milk, unless this be incorporated in the solid dishes. One quarter to one-third of a liter is sufficient beverage for the day. In this way, the dilatation of the gastric wall and irritation of the mucosa may be prevented, or at least essentially diminished, most of the digestive work being done by the salivary glands, the pancreas, the bile, and the enteric juice. Routine washing of the stomach in these cases is now entirely abandoned, as the few remnants of active gastric juice are swept away by the irrigations. Regulation of the bowels is of the greatest importance in all cases of displacement of the stomach alone or together with the intestine.

The *treatment* of enteroptosis is based upon the symptoms and must meet the double indication of disinfecting the intestinal contents and regularly emptying the bowel. Relief is often secured by well-adjusted supporting bandages, properly selected exercises (for strengthening the abdominal coverings), cold baths, electricity, and massage. Surgery, in form of the application of an anastomosis between the lowest point of the stomach and the highest jejunal coil, is regarded by Grechen as the simplest and most reliable radical treatment in severe cases of chronic enteroptosis. This operation has highly beneficial results, and owing to the improved modern technique, its mortality (10 per cent.) would be still lower, if surgical intervention were not often too long delayed. Other procedures, such as pylorectomy, or plastic dilatation of the pylorus, are either inefficient or too

dangerous. The indications for surgical interference are restricted to the advanced cases of enteroptosis, unrelieved by symptomatic measures, in which the dilated paralyzed stomach and displaced intestines have led to severe digestive disturbances, notably vomiting, loss of weight and nervous symptoms.

The importance of careful individualism in these cases is emphasized by Ransohoff, who states that even desperate cases of enteroptosis with grave neurasthenic symptoms, are often permanently cured by operation, which should not be too long delayed, after all other measures have been found inefficient. However, only those cases of gastroptosis should be operated upon in which a serious functional disturbance, amenable to surgical relief, is present. Goldthwait emphasizes the importance in these cases of "teamwork" between the physician, the surgeon and the orthopedist.

A good description of enteroptosis and splanchnoptosis is given by S. Goodwin Gant, who states that this condition may be general (Glenard's disease), when the liver, kidneys, spleen, stomach and intestines descend below their normal level; or localized, when the displacement concerns but a single organ or section of an organ, as for instance when there is a sagging of some particular part of the large intestine. Enteroptosis is sometimes due to a separation of the recti muscles, and ingenious procedures have been devised for the repair of the abdominal wall. The first treatment recommended for the support of displaced organs was Glenard's elastic hypogastric belt. This has been more or less successfully imitated by many mechanical devices, in form of belts, trusses, stocks, girdles, binders, pressure-pads or pledgets, plaster jackets, corsets and roller bandages. Gant points out that these supports should conform to the lines of the body while breathing, walking and defecating, but must also be sufficiently firm to retain the displaced organs in position, at all times. A support of this kind must be worn for weeks or months. Systematic deep breathing, massage, and mechanical vibration, as well as electricity and

hydrotherapy, are useful adjuvants in the treatment of enteroptosis. After the failure of non-operative measures, surgical procedures are indicated for the restoration of the displaced organs and their fixation in, or as near their normal position as possible. The fixation of the displaced colon to the abdominal wall (colopexy and sigmoidopexy) have proved successful measures in the treatment of enteroptosis in the experience of Gant, who has devised several modifications of the operative technique, especially for the management of sagging portions of the bowel after it has been fixed to the abdominal wall. His experience with colopexy which he does not regard as a dangerous operation, has convinced him that persons suffering from obstipation and other troublesome manifestations of enteroptosis, who fail to obtain relief from nonsurgical measures, can in many instances be permanently cured by this procedure.

Based on his assumption of congenital relaxation of all tissues, in enteroptosis, Zweig is not in favor of surgery in these cases. Although the stomach, the colon, or the kidney, as the case may be, can be anchored in place, this will not alter the clinical picture of visceral neurosis, the anatomical dislocation of the organs being relatively unimportant as compared to the symptoms on the part of the digestive and nervous system. Rational treatment aims at restoring the mechanical equilibrium in the abdominal cavity, thus counteracting the further descent of the viscera; and also at relieving the associated disturbance of the digestive nerve-system.

Gastroptosis being in the great majority of the cases the more or less remote result of gastric atony (Gazaignaire), the displacement may be relieved by dietetic measures, after the normal shape and position of the stomach have been reestablished, and the kink in the pyloroduodenal canal has been straightened out. Belts, bandages, and other abdominal supports aim at this result. The effects obtained depend not so much upon the displacement itself, as upon the configuration of the abdominal walls. When the patient's

abdomen is relaxed and hangs down, the results are often excellent, whereas in the case of a flat and caved-in abdomen, treatment of this kind is apt to prove unsatisfactory. A stomach not bound down by adhesions is usually well held up by a non-elastic belt, with a pneumatic fixture. The elevated organ tends to resume its normal shape, and promptly responds to the beneficial effects of restitution and dietetic regime. The advantages of this method of treatment consist in the often immediate relief of the painful symptoms; the relatively rapid gain in weight; and the definite return of the stomach to its normal position, the required time depending upon the degree of gastric atony present.

The existence of gastroptosis can not be surmised on the basis of the subjective symptoms complained of by the patient, for in the great majority of the cases, the symptoms do not differ markedly from those of atony of the stomach, or hypasthenic dyspepsia. Gastroptosis finds its clinical expression in the disturbance of the rhythmic evacuation of the stomach. This delayed emptying of the organ is dependent upon the two factors of motor insufficiency (gastric atony), and obstruction of the digestive passage through the resulting curvature in the pyloroduodenal canal. The displacement of the stomach is revealed through the routine examination of the gastric boundaries, and the demonstration of the lowered inferior margin and lesser curvature. Simple percussion will not suffice to show the descent of the lesser curvature, when ptosis and atony are associated with dilatation, as is frequently the case.

Based upon the observation that in certain cases of enteroptosis the disturbances are not so marked when the bowel is full, as the result of several days' constipation, Arnoldi recommends an abdominal support which is held tightly in place by a roller bandage directly above the symphysis. This bandage does not aim at retaining the stomach and the bowel, but at preventing the descent of the upper abdominal organs, through the firm fixation of the lower organs. Lerch, who points out that the intra-abdominal pressure must be

restored in these cases, has devised a suitable whale-boned cloth bandage, which restores the pendulous abdomen to the normal, or nearly so. A natural belt, strong enough to resist the intra-abdominal pressure, can sometimes be provided by surgical interference, after medical and orthopedic measures have been exhausted. Resection of a portion of the relaxed abdominal coverings serves to tighten the wall, and may be sufficient to keep in place, without anchorage, the dislocated organ or organs. (Lamyot de la Haye.)

Displacements of the *liver* and the *spleen*, hepatoptosis and splenoptosis, are observed only in cases of very marked tissue-relaxation, congenital or acquired. The condition is usually noted in those cases in which a pendulous abdomen, with all its sequelæ, develops as the result of acquired mechanical factors (such as difficult childbirth, or surgical extirpation of very large abdominal tumors). The same causes may also lead to a displacement of the *kidney*, known as nephroptosis. The symptoms are usually vague, and partly referable to nervous irritability or weakness. A displaced pelvic kidney is usually congenital, and may never give rise to disturbances of any kind, but cases have been recorded in which it has acted as a serious obstacle to childbirth. The symptoms of renal displacement consist in abdominal pains, digestive disturbances, and nervous affections of variable degree. No operative interference is called for, unless the symptoms are of considerable severity. Removal of diseased female genital organs leads in many cases to subsidence of the renal symptoms. (Plummer.) The indications for operative interference with the kidney itself must be based upon the anatomical degree of the displacement, the gravity of the condition, especially strangulation, and the presence of complications, such as intermittent hydronephrosis, pyelonephritis and nephritis. The operation of choice for pelvic and otherwise displaced kidneys is dislocation and reimplantation in a place where the organ will not be a mechanical hindrance. Provided the necessary pre-

cautions are observed, the anchorage of the kidney is usually followed by very satisfactory permanent results.

A complete discussion of enteroptosis should include the mention of displacements of the esophagus and of the heart (cardioptosis), although these ptoses are not common. Ptosis of the female genital organs (prolapse) is a condition of itself, and is not usually included under the general heading of enteroptosis.—*Medical Record.*

Extracts from Home and Foreign Journals

SURGICAL

Transplantation of Undescended Testicle. . .

P. Turner records two cases of double undescended testicle treated by transplantation to the opposite sides of the scrotum through an opening in the scrotal septum. He claims the following advantages for this procedure: (1) The testicle is transplanted to the well-developed side of the scrotum, where there is much better accommodation for it than on the ill-developed side. (2) It is usually possible to effect the transplantation without dividing the vessels of the cord. (3) Sutures to fix the testicle in its new position are unnecessary, and the organ itself is not damaged during the operation. (4) When the testicle has been drawn through the septum in the scrotum the small opening contracts, and hence the weight of the scrotum acting through the septum exerts a continuous slight force tending to keep the testicle in its new position. (5) The operation is carried out without dividing the external abdominal ring and with the least possible damage to normal tissues.—*Pediatrics.*

Carcinoma of the Male Breast.

As is generally understood, this neoplasm has but slight connection with typical cancer of the female breast, being of very exceptional occurrence despite the fact that it occurs in a superfluous structure. It bears some resemblance to the scirrhous or atrophic form of cancer of the female breast in that it occurs in senile subjects, grows slowly, attains but limited size, and tends from the first to involve the lymph node paquet in the neighboring axilla. That so rare

yet typical a growth can occur in a highly atypical form is shown by a case described by Husse in the *Muenchener medizinische Wochenschrift* of November 9. The man was but 43 years old, a consumptive, and had besides a mitral lesion of unknown duration and origin. Two months before consultation a small tumor was noted in the left breast. This grew with amazing rapidity and both macroscopically and microscopically appeared to be a medullary cancer. The lymph nodes in the axilla already formed a paquet the size of an English walnut. The patient submitted to a very radical type of removal without ill consequence. The case is singular in many respects. Florid cancer in any location is not prone to attack a man with health impaired by cardiopulmonic disease, and it is of course a mystery why it should have selected so rare a site. Since it was the left lung alone which was involved, as well as the left heart, one is inclined to wonder whether frequent percussion close by or over the cancer area could have by a succession of petty traumatisms furnished the necessary determining factor. The author is entirely silent on this possibility, perhaps because it was difficult to secure a good personal history.—*Medical Record.*

The Prevention of Peritoneal Adhesions.

Pribram (*Archiv fur klinische Chirurgie*, Bd. 105, Heft 2, 1914) reports upon experiments carried out in Payr's clinic with a view to prevention of peritoneal adhesions. The material used consisted of the vitreous humor of the eyes of sucking calves obtained under aseptic precautions at slaughter houses. The experimental animals were dogs, cats and rabbits. It was first shown that the vitreous humor did not produce anaphylaxis, fever, or any other disturbance, and that its introduction in large quantities into the peritoneal cavity was well borne by the animals. The experimental animal was etherized, the hair shaved, and the skin washed with ether, alcohol, and tincture of iodine. A median-line incision was made, and at once the peritoneum

sutured with continuous silk suture, the muscle and fascia with catgut and the skin with silk. The line of sutures was painted with tincture of iodine and an aseptic dressing applied. Then the virtreous was injected into the peritoneal cavity. Control animals were used in each instance. The effect of the vitreous is to render the peritoneum very slippery and to gradually spread over the entire surface. Primary adhesion is either entirely prevented or at least very much reduced, as shown by comparison with control animals. It will not prevent adhesions as a result of infection or wide-spread chemical action.—*The Therapeutic Gazette.*

Roentgen-Ray Treatment of Exophthalmic Goitre.

In the *Medical Record* of September 4, 1915, Simpson reaches conclusions as follows as to the use of the x-rays in Graves's disease:

1. Many cases of exophthalmic goitre are associated with enlarged thymus glands, and this association often causes serious postoperative symptoms and even death.

2. While such an association will seriously complicate and prolong a surgical operation, it offers no such added difficulties for the Roentgen therapeutist.

3. Not only such ductless glands as the ovaries and testicles, but also the enlarged thyroid and thymus glands as well are very sensitive and may be atrophied by the Roentgen ray.

4. This theory has been amply proved by laboratory experiments and clinical results in many cases of hyperactivity of the thyroid gland—exophthalmic goitre.

5. If these cases of status lymphaticus and exopthmalmic goitre will give the Roentgen ray a fair and impartial trial the majority of them will be relieved of all troublesome symptoms and make unnecessary a disfiguring, dangerous, and often futile operation.

6. The above findings are not entirely the writer's own hastily formed ideas, but include the results of several hundred cases of exophthalmic goitres that have been successfully treated by the Roentgen ray, the literature of which is open to all who may care to investigate it.—*The Therapeutic Gazette.*

Warm Anesthetic Vapors.

Francis B. Shipway points out the defects attendant upon the administration of cold ether by the open method and describes an apparatus by which he administers warm ether vapor. The superiority in this method lies in the fact that there is greater ease in breathing; there is a free airway and complete oxygenation; the loss of body heat is less and hence there is less shock; the patients appear to recover a little more quickly, and it also seems that lung complications will be a little less frequent with this method. There is no need to warm the ether artificially in very warm weather above the room temperature; in cold weather 85° to 90° F. will give good results. The higher level is better for patients who are feeble or shocked, or for operations which involve much exposure, loss of heat, or much bleeding. — *Medical Record.*

Pressure Sign of Peritoneal Irritation.

The so-called Blumberg's sign is the pain in the region of the appendix following rapid removal of the hand after it has been applied to the spot to induce pressure. Nikolaieff denies that it is specific for appendicitis. He has been using this sign long before Blumberg, and found it not only in appendicitis, but in every case of peritoneal irritation, whatever its cause. Thus he found it in perforative peritonitis, gastric or duodenal ulcer, in cholecystitis, typhoid ulcers, etc. He usually examines each of the four quadrants of the

abdomen. He gives the history of five out of 340 cases in which he studied this sign. It is especially pronounced during the first twenty-four or forty-eight hours, being thus one of the earliest and therefore most valuable signs of acute involvement of the peritoneum by any of the above mentioned diseases. In chronic peritonitis, for instance tuberculous peritonitis, it is absent.—*The Journal of the American Med. Assn.*

MEDICAL

The whooping cough clinic established in New York by the municipal health department in August, 1914, has made a report of its first year of work, which is summarized in the November *Monthly Bulletin* of the department of health. The total number of patients treated was 1,397, and over 12,000 treatments were given. The plan of treatment has finally resolved itself into a treatment by a vaccine, supplemented by an antipyretic mixture and cod liver oil emulsion, the latter to be used in cases in which there is considerable bronchitis. The vaccine have been prepared in the laboratory of the board of health, and under the use of this agent the paroxysmal stage of the disease has been limited on an average to a duration of about three weeks. Prophylactic immunization has been practiced in forty-five cases with no disease among these children. Four out of eleven exposed patients treated with the antipyretic alone as controls contracted the whoop, and eight out of thirty-six persons not treated became infected. The method of treatment consists in giving three or four subcutaneous injections, on every other day, and following this by the antipyretic mixture for a period of three or four days. The whoop usually disappears between the third and fourth injections; if it does not, another course may be given. The initial dose for children less than 1 year of age is 250 million organisms, doubled every second day. Children over 1 year old receive an in-

itial dose of 500 million and adults 1 billion. The prophylactic dose consists of three injections of 500, 1,000 and 2,000 millions at three-day intervals. It is said that the establishment of the whooping cough clinic is warranted, no matter what method of treatment is employed, and several other clinics will probably be established. Many private physicians have asked consultation with the physician in charge of the whooping cough clinic.—*The Journal of the American Medical Asso.*

The Treatment of Arthritis.

Seaborn in the *Canadian Practitioner and Review* for Sept., 1915, believes that it is now well recognized that the focus of chronic suppuration must be removed. The tonsils, teeth, nasal fossæ, appendix, or prostate often contain this focus. In many cases, after most diligent search has been made to locate the focus and when the serum from the joint is negative, we may still find the offending organism by removing under most strict asepsis the lymphatic gland nearest to the joint, macerating it, and making a culture of the contained organisms. Then vaccines may be prepared and that used which gives the most characteristic reaction.

In two cases in which this was done the improvement was very great. In both staphylococcic and streptococcic vaccine had been used, and in one gonococcic vaccine as well.

The improvement after autogenous vaccines thus procured was very great.—*The Therapeutic Gazette.*

Tuberculin Therapy.

Henry L. Shively says there is a general agreement among sanatorium physicians that patients who receive tuberculin treatment lose their bacilli more readily than patients who do not, that a greater proportion are discharged arrested, a larger number are restored to working efficiency, and that after a period of years their cure is better maintained than

that of patients who have not had tuberculin. Besides these regular routine effects, which are gradually obtained over long periods of time, there are certain fortunate patients for whom tuberculin treatment is a real boost. The special field for tuberculin is that large group of patients with fairly good resistance, with little or no fever, stationary or slowly progressive, who are ineligible for or can not go to a sanatorium, or who have failed to obtain a cure or an arrest while at a sanatorium. The time has come when the tuberculin treatment may be applied in private practice without danger and to advantage, or at least every tuberculosis clinic should have its tuberculin class. It is well for the beginner to select one preparation of tuberculin, preferably one representing all the substances contained in the bacilli; the best for all purposes is probably the bacillen emulsion. Hitherto the technique of the administration of tuberculin has been invested with unnecessary difficulties. A blood count, the determination of the opsonic index, or a complement fixation test, is of little practical value in treating the patient. Much time may be lost in beginning with or continuing too long with excessively minute doses. It is probable that doses of one-tenth million or even a millionth of a milligram are practically inert.—*Medical Record.*

Treatment of Renal Diseases.

Hirschfeld obtained far-reaching benefit in certain cases of contracting kidneys by a diet very low in protein—only 30 grams of absorbable albumin, to which he added 5 grains of sodium chloride. The diet was made up chiefly of vegetables, potatoes, rice, cream, sugar and fruit in large quantities. Under this regimen the polyuria sinks to ¾ liter in 24 hours and is usually alkaline or amphoteric. If still acid, alkalies should be administered as an alkaline reaction is a desideratum. As a rule a fall of blood pressure is noted after two weeks of this diet. Two hours daily of walking is also of the greatest benefit, because it shows up the nitro-

gen excretion and thereby spares the kidneys and reduces the albumin in the urine if this is present. The author evidently believes strongly in the anguinal origin of many cases of nephritis. The use of sodium chloride in these cases appeared to be largely intended to determine the degree of intolerance to the substance as the patients are elsewhere stated to be on a salt poor diet, and the attempts to keep the urine alkaline seem to be with the view of warding off an acidosis. The article will be continued and doubtless somewhat random statements will be properly summed up.—*Medical Record.*

The Dog as a Carrier of Disease.

Of the diseases carried by dogs, the foot-and-mouth disease is probably of the greatest interest at this time. In this case the dog acts as a mechanical carrier of infection. The dog which runs across an infected farm easily may carry in the dirt on his feet the virus of this most contagious of animal diseases to other farms and thus spread the disease to the neighboring herds.

There are, however, many other maladies in the spread of which the dog takes an active part. "The Dog as a Carrier of Parasites and Disease" (1), rabies, hydatid, ringworm, favus, double-pored tapeworm, roundworm, and tongue-worm are often conveyed to human beings in this way. It occasionally happens also that the dog carries fleas and ticks around transmitting bubonic plague or the deadly spotted fever in this way.

Hydatid disease is caused by the presence in the liver, kidneys, brain, lungs, and other organs, of a bladder worm of larval tapeworm. A dog which is allowed to feed on carrion or the raw viscera of slaughtered animals may eat a bladder worm containing numerous tapeworm heads. These tapeworm heads develop into small segmented tapeworms in the intestines of the dog. The tapeworms in turn develop eggs which are passed out in the excrement of the dog, and

spread broadcast on grass and in drinking water where animals can eat them and thus become infected. The hog is particularly liable to this disease because of its rooting habits.

Of the external parasites which dogs may carry to animals, fleas and the various kinds of ticks are both troublesome and dangerous. The remedy is clear. The owner must keep his dog clean, not merely for the comfort and happiness of the dog, but to prevent it from becoming a carrier of disagreeable and dangerous vermin.

These reasonable measures, important to the stock farm, have a direct connection with the health of the family. Where ringworm or other skin diseases break out among the children, or the worm parasites develop, it is well to determine whether a dirty or uncared-for dog may not be carrying infection on his skin or his hair, or by conveying disease from carrion directly to the food and persons of his friends. —*Pediatrics.*

Direct Injections Into the Heart in Desperate Conditions.

Szubinski relates three cases of intracardial injections, which were made to replace the ordinary intravenous injection in impending heart failure. A preparation of digitalis was used along with suprarenin. In addition intravenous and subcutaneous injections were made in the hope of maintaining the gain. The first of the soldiers treated had both legs shattered and had bled for two hours before transport from the field. There was no response to ordinary remedies. The pulse and respiration showed that death was imminent. The intracardiac injection caused a sudden brief rally—two or three minutes long—after which the old picture reappeared. The second patient was badly shot up with protrusion of most of the intestine through four openings, and shot fractures. The intestines were hastily replaced and the openings sutured. The patient seemed hope-

lessly shocked. There was a rally after the intracardiac injection and the patient became restless and partly sat up. He survived ten hours under ordinary subcutaneous injections of caffeine and camphor with Murphy's rectal drip. In the third case was one of wound of the head. There was Cheyne-Stokes breathing. Strophanthin and suprarenin were injected. There was a brief rally with death in fifteen minutes. It is possible that now and then these injections will save life.—*Medical Record.*

OBSTETRICAL

Myomectomy Followed by Sepsis.

The second case was that of a woman thirty-five years of age who had had five children. She was admitted to the hospital for menorrhagia and metrorrhagia existing for four months. She had a child born nineteen months previous to admission to the hospital. Three years ago had had a vagino-plastic operation and amputation of the cervix. Vaginal examination disclosed genital hemorrhage, erosion of the new external os, fundus and body of uterus normal position, freely movable, and about the size of a two-months' pregnancy; right ovary normal, left not palpable, but no mass, not tender. There were two histories of this case, one giving a regular menstrual history and the other showing a postponed period which raised the question of ectopic. The abdomen was opened and we found large varicosities in the right broad ligament; uterus enlarged to size of two months' pregnancy; adnexa normal. I regret to say that I curetted this patient before opening the abdomen. I thought I would take out a wedge shaped piece from the fundus down to the utero-cervical junction, leaving endometrium. The raw surfaces were covered by separating the bladder as in a hysterotomy and the uterus was anteverted by suturing the anterior covering over the top of the new uterus. That night

the patient had a chill and the temperature arose to 103.8. The next morning she had another chill and the temperature went up to 105. Since then the temperature has gradually dropped and is now normal. The condition looked like a toxemia but it could occur from manipulation. The respiration and pulse corresponded to the temperature rise. The first blood count showed a white blood cell content of 24,000, the second count two days after the operation showed white blood cell count of 32,000. The pathological report said: endometrium hypertrophied and hemorrhagic; pronounced interstitial fibrotic endometritis; hypertrophy of musculature and sclerosis of vessels.—*Long Island Medical Journal.*

Results of the Mesothorium Treatment of 100 Cases of Cancer of the Uterus.

Baisch has used radium and mesothorium on these growths since February, 1914, and has controlled 100 cases in this manner during a fifteen months interval. Clinically, three types of disease were treated, as follows: Completely inoperable, barely operable, readily operable. The latter class does not comprise beginning cases, such as might be accidentally stumbled upon. Of the inoperable 43 cases treated by radiation, but one may be termed cured; of the remainder, 20 have ended fatally, while 22 have not been improved. The cured case, isolated though it be, is a striking example of what mesothorium can do. In numerous other cases the remedy caused amelioration of symptoms, and delayed the outcome. Bleeding and fetor were checked and some of the women were able to return to their work. In general, it may be safely asserted that mesothorium (including radium) is the best known palliative. The second group of "not yet inoperables" was made up of 20 subjects who "stood on the borderline of operability." In 50 per cent of these cases recovery ensued, while 4 patients are dead and 6 are not improved. The conditions of recovery differ from those in which surgery is the treatment, as re-

currence after eighteen months of quiescence following mesothorium treatment is not likely to happen. There remain 37 cases of readily operable cancer in which mesothorium was the treatment. Of this number 28 are apparently cured, while there have been 5 deaths and 4 negative results.—*Medical Record.*

On the Use of Scopolamine-Morphine in Labor.

Croom in the *Edinburgh Medical Journal* for August, 1915, reaches these conclusions:

No absolute routine treatment should be adopted.

Every case should be treated upon its own requirements.

The physician must be in constant attendance from the first dose, which should be administered when the pains become regular early in the second stage of labor.

The patient should be kept as quiet as possible.

The quieter the surroundings, the more successful the result.

It is important that the preparation should be fresh and accurately prepared.

Fetal hearts should be carefully watched.

Artificial delivery, when necessary, should be accomplished under chloroform.

Oligopnea should be carefully watched for and treated when present.—*The Therapeutic Gazette.*

Cure of a Vulval Cancer by Zeller's Method.

Reusch relates the following case: A woman of sixty-two was attacked by profuse hemorrhage from the vagina. Her health had been failing, but she had had no local symptoms beyond hemorrhage. Only when the labia majora were separated did an ulcerated carcinoma come into view. This had originated on the inner aspect of the right labium major and then involved the labium minus and clitoris. There were no enlarged inguinal glands. The patient refused both

the knife and radiotherapy. Nothing was left but to employ the caustic-paste method of Zeller first recommended in 1912, which has never received the attention it merits. The formula is as follows: ℞. Acid. arsen., 2.0; hydrarg. sulphur. rubr., 6.0; carbo. animal, 2.0. Misce. This powder is made into a paste with water. The mixture of silicates of potash and soda was given inwardly. Both these remedies were devised for Czerny's Cancer Institute. The paste caused a violent phlegmonous inflammation *in situ* extend ing down the thigh and up the abdomen. For the first the inguinal lymphnodes became swollen. The patient had to be kept under morphine. In about two weeks a great slough came away comprising the entire cancer. A course of radiography now followed and the cancer area healed over completely. Nine months have now passed without recurrence, although the enlarged lymphnodes have never undergone resolution.—*Medical Record.*

Intracranial Hemorrhage in the Newly Born.

This number of the *Centralblatt* is devoted almost entirely to Mayer's analysis of the literature on this subject and report of three cases from his own experience and discussion of the source of the bleeding and the causes. The forceps had been used in Mayer's cases, and necropsy showed that the tentorium had been lacerated in each case. The pelvis was of normal size in two of the cases, but premature rupture of the bag of waters and inadequate labor contractions finally compelled operative delivery. Pressure from temple to temple and also from the frontal to the occipital bone may be dangerous, but cases are known in which the hemorrhage occured with smooth normal delivery in women with wide birth passage and normal pelvis, who had already borne children. He cites twelve cases of this kind, remarking that they show that there must be some predisposition on the part of the child. It is possible that letting the child lie on its side may compress the veins and induce venous hyper-

emia, thus aggravating a tendency to hemorrhage in the tentorium region which the newly born might otherwise survive. The pressure from the accumulating blood explains the cases in which slightly asphyxiated newly born children became more and more asphyxiated, and explains also the sudden deaths of not asphyxiated newly born who seemed to be normal for a time and then died suddenly.

The symptoms vary as the hemorrhage is above or below the tentorium, and the reports of operative removal of the accumulated blood before irreparable damage has been done sounds encouraging. He thinks that we may be able to save many of the children by prompt intervention. With hemorrhage above the tentorium the symptoms are more of a cortical nature, principally in the domain of the facial, oculomotor and accessorius nerves and in the extremities. With hemorrhage below the tentorium, the symptoms are from the spinal nerves, such as rigid extremities, erection of the penis and wrinkling of the skin on the scrotum. Spasms have differential value only when restricted to one side or one extremity. With hemorrhage below the tentorium the children are strikingly quiet and somnolent, and there may be cyanosis; the fontanels do not bulge and the lumbar puncture fluid usually shows blood. Puncture of the subdural space through the large fontanel at the point farthest toward the side may decide the question, while it seems perfectly harmless and saves much time. With hemorrhage above the tentorium the children are restless and scream from the stretching of the dura; the greater fontanel bulges, and the vagus center, the vasomotor center and the respiration center show signs of irritation. If the children survive to the stage of paralysis the spasms subside, there is general relaxation, the reflexes die out, and the respiration becomes of the Cheyne-Stokes type. If the hematoma is not very extensive, it may be possible to aspirate the blood out through the fontanel or release it by lumbar puncture. Dutreix has reported three out of five cured by repeated puncture, and other French writers have published successful

cases of this kind. Mayer has had no personal experience in this line but his review of the literature encourages more active measures than have been the rule hitherto.—*The Journal of the Amer. Med. Asso.*

Removal of Ovaries.

There will seldom, if ever, arise the justification for the removal of both ovaries in a woman less than forty years years of age. Better that she retain one ovary or a part of one ovary, and that a troublesome member, than to suffer a total loss of her ovarian secretions. In other words, it is better that she suffer some local discomfort than to become a hopeless neurotic. Where the uterus is deeply involved and it is advisable to remove the tubes, I am of the opinion that the best results will follow a complete hysterectomy. Less than this will fail to give complete relief and might endanger life from postoperative complications for lack of adequate drainage. — Dr. Palmer Finley in *International Journal of Surgery.*

Dysmenorrhea.

It is very important that a girl should be educated to dress properly and her clothing should always be sufficient to keep her dry and warm. Women should be taught the great necessity of regularity in their daily stools. Most cases of dysmenorrhea due to inflammatory conditions are benefited by the use of the hot douche and of medicated tampons.—*Medical Practice.*

Editorial

PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at $1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, o registered letter, should be addressed to the Business manager, C. S. Briggs, M. D corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

PHYSICAL EXAMINATION OF MEDICAL STUDENTS.

While much has been accomplished in the last decade in eliminating the untrained and unfit applicant for a medical degree, very little has been said or written in regard to physical requirements.

In days gone by physical examinations were not as necessary as at present; in the first place the medical course was shorter and not so trying on the body, and in the second place, should the medical student have developed some disease or physical weakness toward the end of his course, it was not such a serious matter, since he would have lost only two or three years of his life. As a matter of fact if he had been diligent in his studies and of receptive and retentive mind, unless his trouble were very serious, he was probably better off for having studied medicine.

At present, however, matters are entirely different. The preliminary education must be more thorough, the medical curriculum is longer, the vacations are shorter and a post-graduate course, while not required, is expected. Besides this, as a general rule, medical study is more expensive, year for year, than in the past, to say nothing of the increased expenses incident to the longer course.

In view of these facts it would seem wise to establish physical as well as educational standards in order that the parents, or in case the student is self-supporting, the stu-

dent himself, might not have to spend his money and time only to find out in the second, third, or fourth year of the medical course, or while in the hospital or even shortly after commencing practice, that he is suffering from tuberculosis or some other serious ailment.

Besides excluding those already unfit at the time of application, such examinations would detect ocular defects, nervous conditions and other troubles which might, if not corrected, lead to failure of the student in his work.

Regular annual examinations should also be conducted in order that defects or diseases arising in the course of the year's work might be detected before they have handicapped the student, or if serious, give the student an opportunity to drop out before wasting more time in the study of a profession which he perhaps can never practice.

Such examinations may be more general in the American universities than we suspect. If this is the case, then very little is written about them. We know from personal experience that such examinations are made at Yale on members of the freshman class, but no further examinations are made during the course. Indeed, if we remember correctly, only the academic freshman class undergoes a physical examination, such not being required in the other departments.

Physical examinations as suggested above, if made in all the medical schools and properly tabulated, would also be valuable from a sociological point of view.

W. T. B.

Principal Causes of Death.

Census Bureau's Summary of the Statistics for the Registration Arear in 1914.

Washington, D. C., January 16, 1916.—According to a preliminary announcement with reference to mortality in 1914, issued by Director Sam L. Rogers, of the Bureau of the Census, Department of Commerce, and compiled by Mr.

Richard C. Lappin, chief statistician for vital statistics, more than 30 per cent of the 898,059 deaths reported for that year in the "registration area," which contained about two-thirds of the population of the entire United States, were due to three causes—heart diseases, tuberculosis, and pneumonia—and more than 60 per cent to eleven causes—the three just named, together with Bright's disease and nephritis, cancer, diarrhea and enteritis, apoplexy, arterial diseases, diphtheria, diabetes and typhoid fever.

The deaths from heart diseases (organic diseases of the heart and endocarditis) in the registration area in 1914 numbered 99,534, or 150.8 per 100,000 population. The death or mortality rate from this cause shows a marked increase as compared with 1909, when it was only 123.1 per 100,000.

Tuberculosis in its various forms claimed 96,903 victims in 1914, of which number 84,366 died from tuberculosis of the lungs (including acute miliary tuberculosis). As a result of a more general understanding of the laws of health, the importantance of fresh air, etc., due in part, no doubt, to the efforts of the various societies for the prevention of tuberculosis, there has been a most marked gratifying decrease during recent years in the mortality from this scourge of civilization. In only a decade—from 1904 to 1914—the death rate from tuberculosis in all its forms fell from 200.7 to 146.8 per 100,000, the decline being continuous from year to year. This is a drop of more than 25 per cent. Prior to 1904 the rate had fluctuated, starting at 201.9 in 1900. Even yet, however, tuberculosis has the gruesome distinction of causing more deaths annually than any other form of bodily illnesses except heart diseases, and over 40 per cent more than all external causes, accidents, homicides, and suicides combined.

Pneumonia (including bronchopneumonia) was responsible for 83,804 deaths in the registration area in 1914, or 127 per 100,000—the lowest rate on record. The mortality rate from this disease, like that from tuberculosis, has

shown a marked decline since 1900, when it was 180.5 per 100,000. Its fluctuations from year to year, however, have been pronounced, whereas the decline in the rate for tuberculosis has been nearly continuous.

The only remaining death rate higher than 100 per 100,000 in 1914 was that for Bright's disease and acute nephritis, 102.4. The total number of deaths due to these maladies in 1914 was 67,545, more than nine-tenths of which were caused by Bright's disease and the remainder by acute nephritis. The mortality from these two causes increased from 89 per 100,000 in 1900 to 103.4 in 1905, since which year it has fluctuated somewhat.

Next in order of deadliness come cancer and other malignant tumors, which filled 52,420 graves in 1914. Of these deaths, 19,889, or almost 38 per cent, resulted from cancers of the stomach and liver. The death rate from cancer has risen from 63 per 100,000 in 1900 to 79.4 in 1914. The increase has been almost continuous, there having been but two years—1906 and 1911—which showed a decline as compared with the years immediately preceding. It is possible that at least a part of this indicated increase is due to more accurate diagnoses and greater care on the part of physicians in making reports to registration officials.

Diarrhea and enteritis caused 52,407 deaths in 1914, or 79.4 per 100,000. This rate shows a marked falling off as compared with the rate for the preceding year, 90.2, and a very pronounced decline as compared with that for 1900, which was 133.2. Nearly five-sixths of the total number of deaths charged to these causes in 1914 were of infants under 2 years of age.

Apoplexy was the cause of 51,272 deaths, or 77.7 per 100,000. The rate from this malady has increased gradually, with occasional slight declines, since 1900, when it stood at 67.5.

Arterial diseases of various kinds—atheroma, aneurism, etc.—caused 15,044 deaths, or 22.8 per 100,000, in the registration area.

No epidemic disease produced a death rate as high as 18 per 100,000 in 1914. The fatal cases of diphtheria and croup —which are classed together in the statistics, but practically all of which are of diphtheria—numbered 11,786, or 17.9 per 100,000, in that year, the rate having fallen from 43.3 in 1900. This decline of nearly 59 per cent is relatively greater than that shown by any other important cause of death. The rate has not fallen continuously, but has fluctuated somewhat from year to year.

Diabetes was the cause of 10,666 deaths, or 16.2 per 100,000. The rate from this disease has risen almost continuously from year to year since 1900, when it was 9.7 per 100,000.

The mortality rate from typhoid fever has shown a most gratifying decline since 1900, having decreased from 35.9 per 100,000 in that year to 15.4 in 1914, or by 57 per cent. This decline has been almost as great, relatively, as that for diphtheria, and has been greater than that for any other principal cause of death. The total number of deaths due to typhoid fever in 1914 was 10,185. The marked decrease in the mortality from this disease gives emphatic testimony to the effectiveness of present-day methods, not only of cure but of prevention. The efficacy of improved water-supply and sewerage systems of the campaign against the fly, and of other sanitary precautions is strikingly shown by the reduction of the typhoid mortality rate to the extent of more than five-ninths in 14 years.

Whooping Cough, Measles and Scarlet Fever—The principal epidemic maladies of childhood—whooping cough measles, and scarlet fever—were together responsible for no fewer than 15,617 deaths of both adults and children, or 23.7 per 100,000, in the registration area in 1914, the rates for the three diseases separately being 10.3, 6.8 and 6.6, respectively. In 1913 measles caused a greater mortality than either of the other diseases, but in 1914 whooping cough had first place. In every year since and including 1910, as well as in several preceding years, measles has

caused a greater number of deaths than the much more dreaded scarlet fever. The mortality rates for all three of these diseases fluctuate greatly from year to year. The rates for measles and scarlet fever in 1914 were the lowest in 15 years, while that for whooping cough was considerably above the lowest recorded rate for this disease, 6.5 in 1904, although far below the highest, 15.8 in 1903.

Railway and Street Car Accidents—Deaths due to railway accidents and injuries totaled 7,062, or 10.7 per 100,000. This number includes fatalities resulting from collisions between railway trains and vehicles at grade crossings. The death rate from railway accidents and injuries is the lowest on record and shows a most marked and gratifying decline as compared with the rate for 1913, which was 13 per 100,000, and a still more pronounced drop from the average for the five-year period 1906-1910, which was 15 per 100,000.

Deaths resulting from street-car accidents and injuries numbered 1,673, or 2.5 per 100,000. This rate, like that for railway fatalities, is the lowest on record and shows a material falling off as compared with 1913, when it was 3.2, and as compared with the average for the five-year period 1906-1910, which was 3.7.

Suicides—The number of suicides reported in 1914 was 10,933, or 16.6 per 100,000 population. Of this number, 3,286 accomplished self-destruction by the use of firearms, 3,000 by poison, 1,552 by hanging or strangulation, 1,419 by asphyxia, 658 by the use of knives or other cutting or piercing instruments, 619 by drowning, 225 by jumping from high places, 89 by crushing, and 85 by other methods."

Careful study of the above report of the Census Bureau is well worth the time. It emphasizes the editorial we published last month in regard to the increasing mortality from diseases which are essentially diseases of old age. This report shows the increase continues merrily on its way. The tuberculosis mortality still decreases and the pneumonia decrease since 1900 is almost as great. The decline in mortality from tuberculosis has been 55.1 per 100,000 while pneumonia is right there with a decline of 53 per 100,000.

The relationship between these diseases is very evident since either must predispose to the other, and yet such relationship is not sufficiently stressed. It is gratifying indeed to see that education in regard to tuberculosis is not only rapidly eradicating that disease but at the same time lessenning the mortality from pneumonia. Should the decrease in these two diseases continue, in forty years the mortality should be negligible, especially since with fewer cases and greater separation, the chances of contracting the diseases will be lessened.—W. T. B.

The Factor of Poverty in Sanitation.

The factor of poverty in sanitary problems was discussed in Washington, Nov. 26, by Surgeon General William C. Gorgas, whose success in cleaning up Havana and the Panama canal zone have brought him recognition as America's leading sanitarian. His audience was the Clinical Society of Surgeons, assembled in their twenty-fourth annual meeting. Dr. Gorgas said, in part:

"Such sanitary work as is necessary in the tropics is inexpensive, but measures directed against special disease are not the greatest good that can be accomplished by sanitation.

"Before these great results that we can all now see are possible for the sanitarian, we shall have to alleviate more or less the poverty at present existing in all civilized communities. Poverty is the greatest of all breeders of disease and the stone wall against which every sanitarian must finally impinge.

"During the last ten years of my sanitary work I have thought much on this subject. Of what practical measure could the modern sanitarian avail himself to alleviate the poverty of that class of our population which most needs sanitation? It is evident that this poverty is principally due to low wages; that low wages in modern communities are principally due to the fact that there are many more men competing for work than there are jobs to divide among these men. To alleviate this poverty two methods are possible, either a measure directed toward decreasing the

number of men competing for jobs, or, on the other hand measures directed toward increasing the number of jobs.

"The modern sanitarian can very easily decrease the number of men competing for jobs; if by next summer he should introduce infected stegomyia mosquitos at a dozen different places in the southern United States he could practically guarantee that when winter came he would have several million less persons competing for jobs in the United States than we have at present. This has been the method that man has been subject to for the last six or seven thousand years, but it does not appeal to me, nor, I believe, to yourselves. This method is at present being tried on a huge scale by means of the great war in Europe. I do not think that I risk much in predicting that when this war is over and we shall have eliminated three or four million of the most vigorous workers in Europe, wages will rise and for a long time no man will be unable anywhere in Europe to get a job at pretty fair wages.

"But I am sure that every sanitarian would much rather adopt measures looking toward the increase of jobs rather than, as we have done in the past, submit to measures that decrease the number of competitors for jobs.

"I recently heard one of the members of the Cabinet state that in the United States 55 per cent of the arable land, for one reason or another, is being held out of use. Now suppose in the United States we could put into effect some measure that would force this 55 per cent of our arable land into use. The effect at once would be to double the number of jobs. If the jobs were doubled in number wages would be doubly increased. The only way I can think of forcing this unused land into use is a tax on land values.

"I therefore urge for your consideration, as the most important sanitary measure that can be at present devised, a tax on land values."

Pneumonia.

Ten per cent of the deaths in the United States result from pneumonia. It is estimated that during the past thirty days

this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases that outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing and even has surpassed the mortality from tuberculosis. Seventy per cent of all cases occur between December and May. It is distinctly a cold weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in the mouths and throats of healthy persons and it is only through the aid which we unwittingly extend to them that they are transformed from harmless organisms to one of man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of la grippe. Individuals suffering from this infection are peculiarly susceptible to respiratory complications and should properly observe every hygienic rule. Inflammation of the upper air passages, pharyngitis, bronchitis and tonsillitis often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping cough, frequently prepare the way for pneumonia. Anyone who through neglect or carelessness permits the spread of these infections is therefore open to the severest condemnation. Exhausting disease of whatever nature is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome and hence predisposes to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds and the chilling of body surfaces are a result of wetting. The combination of lack of food and fatigue proves particularly disastrous during the winter season and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment and overwork are alike the advance agents of the infection. Overcrowding in street cars, theatres and other public places is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate coughing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be and probably is a factor in infection and consequently should be avoided by every citizen. A remaining most important agent should be mentioned, alcohol. It is in truth the handmaiden of pneumonia, and there is none more certain or more sure of success, especially if liberally and continously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality of from ten to thirty per cent, it should be remembered that our scientific data are not yet complete. There are problems connected with immunity, predisposition and the occurence of epidemics which are yet to be solved. It is known that pneumonia frequently attacks those who are perfectly well and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is, however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility and therefore the incidence of the disease.

Reviews and Book Notices

"A Treatise on the Principles and Practice of Medicine."—By Arthur R. Edwards, M.D., Professor of the Principles and Practice and Clinical Medicine and Dean of the Northwestern University Medical School, Chicago. New (third) edition, thoroughly revised. Octavo, 1022 pages, with 80 engravings and 23 full-page plates in colors and monochrome. Cloth, $6.00 net. Lea & Febiger, Philadelphia and New York, 1916.

We acknowledge with thanks to the publishers the receipt of this excellent textbook upon the Principles and Practice of Medicine in its third edition. The popularity of the work is attested by the rapidity with which one edition followed the other. The work has been completely revised and such changes and additions made as serve to bring it fully up-to-date. Practically new chapters have been added, among which may be mentioned those on icteroanæmia, the ductless glands, x-ray findings, erythremia, sepsis, high calory feeding in typhoid, sporotrichosis, blasto-mycosis, trichnosis, pellagra, arrhythmia, tropical splenomegaly, etc. Recent additions to medicine as a result of investigations by various men have been given due consideration. The work has been brought fully abreast with the times. Despite the additions made the book has been reduced by judicious culling to even a smaller size than former editions. We regard the work as a most valuable book for the up-to-date practitioner and to advanced students, and predict that it will immediately take its place among the most important text books upon medical practice. We take great pleasure in commending the work to the medical profession.

"Painless Childbirth, Eutocia and Nitrous Oxid-Oxygen Analgesia." By Carl Henry Davis, A.B., M.D., Associate in Obstetrics and Gynecology, Rush Medical College in Affiliation with the University of Chicago. Assistant Attending Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago. Chicago, Forks & Co., 1916.

We are in receipt of this little volume and have read it through with great interest. The author puts forward the advantages of nitrous oxid - oxygen analgesia as an agent

for securing painless labor. The various methods for securing eutocia in recent years, notably the lately exploited "Twilight Sleep," or Dammerschlaf, are fully discussed and the merits and demerits of each carefully considered. The advantages of the nitrous oxid-oxygen analgesia are illustrated by a series of cases in which it was successfully employed by the author and others at the Presbyterian Hospital of Chicago and other American hospitals so that the method is no longer in the experimental stage. Freedom from danger to mother or child is a great recommendation for the employment of this method. Expense of the gas and cumbersome apparatus are difficulties in the way of its being adopted generally. The author urges as an argument for its advantages that the method obtains analgesia to any extent, not amnesia the great result of the twilight sleep.

The little book, in that it is the only work devoted to the discussion of the various methods used to secure painless childbirth and the first report of the use of this anesthetic in obstetrics, should prove interesting and instructive to every physician.

"A Textbook of Nervous Diseases for Students and Practising Physicians." In Thirty Lectures. By Robert Bing. Dozent for Neurology at the University of Basel. Only Authorized Translation. By Charles L. Allen, M.D., Los Angeles, Cal., with One Hundred and Eleven Illustrations in the Text. New York. Rebman Co., 141, 143, and 145 West 36th St.

This is an excellent textbook upon the subject of nervous diseases that is sure to become popular with the English-speaking medical public. The author, for convenience of reference and for systematic arrangement, has presented his book in lecture form. The work is exhaustive, covering the entire field of nervous diseases in a concise and readily accessible form. The work is fully illustrated throughout.

The translation, by Dr. Allen, is well done and presents the views of the author as nearly in his own language as is consistent with clear and readible English. It is a thoroughly useful, practical and up-to-date work and should find a place in the library of every progressive physician.

Publisher's Department

Auto-Toxic Ills and the Liver.

Auto-intoxication is so frequently due—directly or indirectly—to hepatic torpor, that stimulation of the liver becomes, perforce, the first and most important detail of its treatment. The almost specific action of Chionia in increasing hepatic activity without producing catharsis gives it, therefore, a highly important place in the successful management of auto-toxic conditions. The results that follow its use are especially satisfactory in that they are accomplished through physiologic or natural channels. One to two teaspoonfuls in water, three times a day will rapidly restore biliary activity and thus remove the train of auto-toxic symptoms commonly described as biliousness.

Here is a Simple Prescription to Chase Away Grip.

Take equal parts of Listerine, Hydrogen Peroxide, water, Spray the nose and throat. Keep your system in good condition; observe the simple rules of hygiene, and do not trouble yourself about the presence of grip.

The above is a prominent physician's prescription for a throat wash recommended by Dr. Samuel G. Dixon, State Commissioner of Health. It is offered on the theory that an "ounce of prevention is worth a pound of cure." The use of this prescription is conducive to cleanliness, and while these ingredients will not kill the germs of pneumonia, it will go a long way in warding off the malady which just now is claiming so many victims. This remedy can be obtained at any drug store at a moderate cost.

Dr. Dixon in his weekly health bulletin, says:

"When compelled to submit to the evils of crowded civilization during grip and pneumonia seasons, it is well to get your doctor to write a prescription for a good disinfection solution to rinse the mouth and throat with several times a day. It has been demonstrated that there are many pneumonia germs in the mouth of those suffering from the grip."

"The Chinese method is the best after all," said a Pittsburg physician this morning. "In China, you know, they pay their doctors to keep them well. If people would see their family physicians now and then for an examination, there would be fewer cases of serious illness."—*Pittsburgh Chronicle-Telegram.*

PALPITATION OF THE HEART.

Cardiac palpitation and the whole train of subjective symptoms that often keep the heart sufferer in constant distress are not infrequently completely controlled by Cactina Pillets when everything else fails. Clinical experience has shown that Cactina is a persuasive tonic not a therapeutic lash—and the skilled clinician appreciates the distinction. One to three pillets every three or four hours will support the heart and relieve the patient's trepidation.

GRIPPE.

"Grippe is an epidemic catarrhal disease, and is usually accompanied by or complicated with severe cephalic, thoracic or abdominal disorders, rheumatism, etc.

The complications are legion, embracing almost every form—respiratory, circulatory, digestive, urinary and nervous—affecting the organs of sight, hearing, olfaction, gustation, etc.

We think that all who have made a test of the action of Tongaline, either in the acute stage of the malady, or in the period of convalescence marked by the extreme nervous disturbance above alluded to, will be convinced that Tongaline has a direct and marked influence for good.

There is not an organ or function of the body which may not be so impaired by grippe as to lead to a permanent disability, but on account of the extraordinary eliminative action of Tongaline, this rarely occurs if that remedy is used, since there is then no opportunity for such an accumulation of the poison as to induce permanent harm."

INTEROL.

The Obstipation, Stasis, Autotoxemia Syndrome is complex in its aetiology as well as in its nosology. Anything that interferes with the calibre of the gut, or with the free passage of intestinal contents through the tube, results in a difficult passage of the bowel contents along the intestinal canal—Obstipation.

This may be a ptosis, or displacement of the gut at some point, a kink, which is a bend produced by a bunch of new formed tissue, abnormal sagging of suspensory structures, or dislocation of some part of the tube. This, together with abnormal dryness of lack of lubricating material due to disturbance of the intestinal mucus glands, results in stagnation of the current, stoppage in many instances, a damming back of the current—Stasis.

As a result of these influences, opportunity is given for increased bacterial or chemical action, the production of an abnormal amount of toxins of unusual virulence, irritation and disturbance of the filtering or protective action of the mucous membrane and resulting absorption of increased quantities of poisonous material—autotoxemia.

As a result of so many factors working more or less interdependently, is the establishment of the Syndrome—a com-

plex group of many symptoms—that may simulate about any disease or diseased condition met with in medicine, or any of its branches.

Furthermore, these conditions, if allowed to go uncorrected, may and often do, result in serious and even fatal disease.

The ideal treatment for such conditions is lubrication. The ideal lubricant is Interol.

"Elixir Saloform Comp., Flexner." Contains 20% alcohol. An efficient remedy for Rheumatism, Gout, Cystitis and Uric Acid Solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See adv. in this issue.)

ELEGANT
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Attention is called to the EXCELLENCE and VALUABLE THERAPEUTIC PROPERTIES of these PREPARATIONS

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NUTRITIVE, TONIC, ALTERATIVE.

A STANDARD REMEDY in the treatment of Pulmonary Phthisis, Bronchitis, Scrofulous Taint, General Debility, etc. Stimulates Digestion, promotes Assimilation.

℞ Each fluidounce contains:

Hypophosphites	Soda - - - -	2 grains
"	Lime - - - -	1½ "
"	Iron - - - -	1½ "
"	Quinine - -	¾ "
"	Manganese -	1½ "
"	Strychnine -	1-16 "

DOSE—One to four fluidrachms.

6 oz. Bottles, 50 Cents.
Pint Bottles, $1.00.

This preparation does not precipitate—retains all the salts in perfect solution.

Robinson's LIME JUICE and PEPSIN

Pure Concentrated Pepsin combined with Pure Lime Juice.

An exceedingly valuable Combination in cases of Dyspepsia, Indigestion, Biliousness, Heartburn and Mal-Assimilation.

APERIENT AND CHOLAGOGUE.

Impaired Digestion is the consequence of a sedentary life, coupled with nervous and mental strain.

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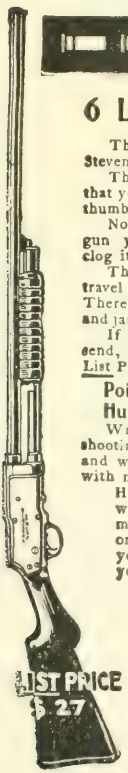

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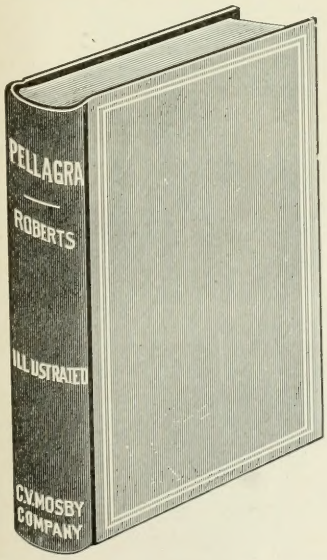

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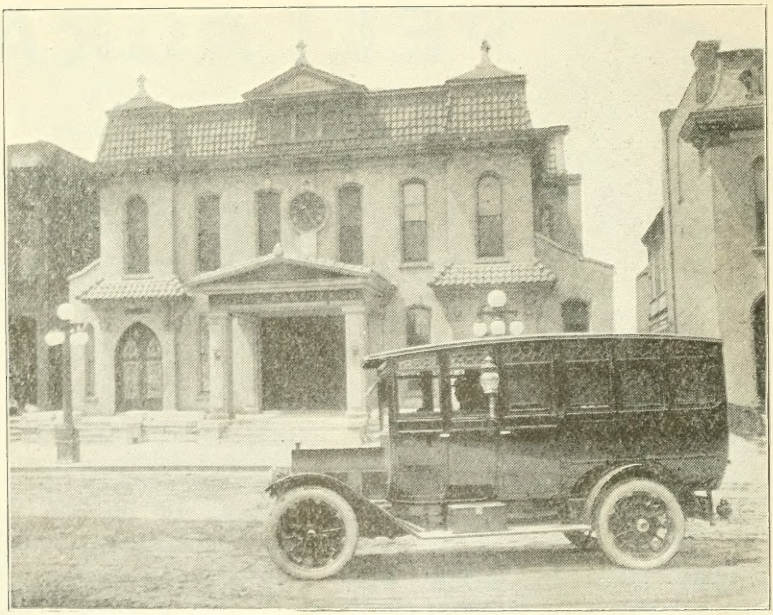

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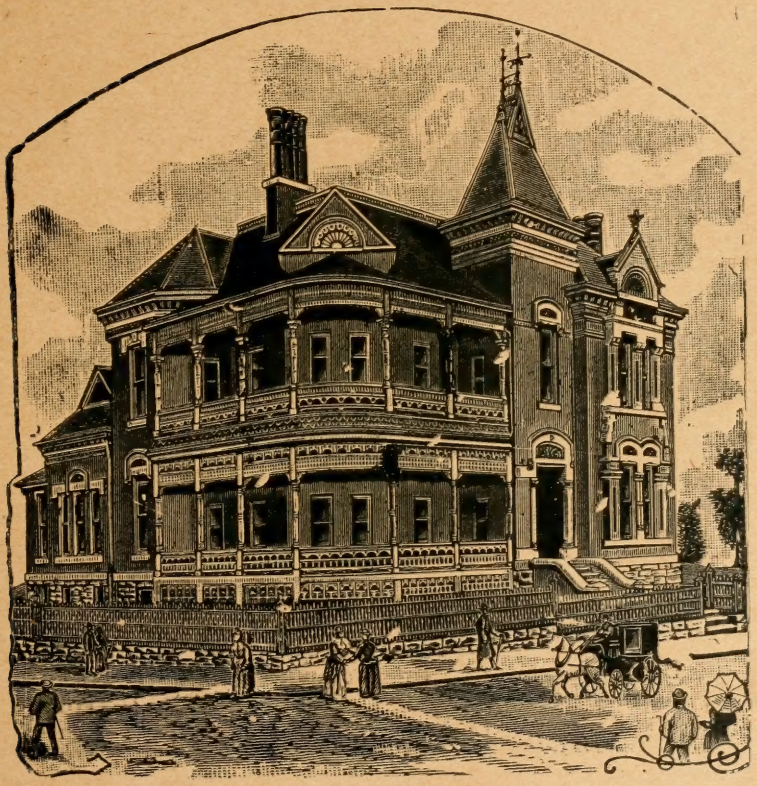

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